REMARKS

I. Amendments to the specification

The format of the specification amendments submitted in the response dated August 15, 2007 was improper in that the new text was not underlined. Applicant now submits the same amendments but with the new next underlined as required. Note that the the reference to a colour version of Figure 6 is moved from page 15 to page 86 and made explicit that the colour version is not shown.

In addition to the previously submitted amendments, the trademark at page 90 is now identified, accompanied by generic terminology, as required and the paragraph beginning at line 23 of page 73 is amended to correct an error.

II. Amendments to the claims

Claim 3 is now recited in claim 1. Claim 3 is redundant and cancelled. Claim 2 includes the method of claim 1 so claim 69 is redundant and cancelled. Claims 62 and 64 are now recited in claim 1 so claims 62 and 64 are redundant and cancelled.

Certain claims are amended or added that recite an antibody that binds specifically to hPygo2 protein in the region defined by amino acids 89-328 of SEQ ID NO:2. This subject matter finds basis at least at page 76 lines 6-19, page 90 lines 5-21, Example 4 on page 102, and Figure 1 with its legend on page 13.

Certain claims are amended or added that recite a polyclonal antibody, a monoclonal antibody, or antibody fragments that bind specifically to hPygo2. This subject matter finds basis at least at page 70 line 5 to page 71 line 16.

The amendments do not add subject matter beyond the application as originally filed. Entry of the amendments by the Examiner is respectfully requested.

RECEIVED
CENTRAL FAX CENTER
MAY 0 8 2008

III. Claim Objections

The Examiner states that claims 3 and 69 would be allowable if re-written in independent form. Claim 1 as amended is the same as claim 3 in independent form. Claim 2 as amended includes the subject matter of claim 1 as amended, so claim 2 is the same as claim 69 in independent form.

IV. Rejection under 35 USC § 112, 2nd paragraph

The Examiner rejects claims 1, 2, 4, 8, 10, 57-59, 61, 62, 65-68 and 70-78 for reciting "predetermined cut-off value". Claims 1 and 10 are amended to include the definition of this expression from claims 3 and 64. All the remaining claims depend on or refer to claims 1 and 10 and so are also amended.

The Examiner rejects claims 8, 59, 61, 70, 71 and 75 for reciting "hPygo2". Claims 8, 61, 70 and 75 are amended to refer to SEQ ID NO:2. Claims 59 and 71 depend on claims 8 and 70 respectively and so are also amended.

The Examiner rejects claims 62 and 68 for reciting "an antibody specifically immunoreactive to hPygo2 protein". These claims are cancelled, thereby rendering the rejections moot. The claims now recite an antibody --that binds specifically to hPygo2 protein--.

Applicant submits that the claims comply with 35 USC § 112, 2nd paragraph.

V. Rejection under 35 USC § 103(a)

The Examiner rejects claims 10, 62, 64-68 and 78 as being obvious over WO02/077023 ('Kramps') in view of US publication 2001/0016651 ('Kennedy'). Applicant traverses.

Claims 10 and 87, and claims dependent thereon, recite an antibody or fragment thereof that binds specifically to hPygo2 protein in the region defined by amino acids 89-328 of SEQ ID NO:2. Neither Kramps nor Kennedy disclose or suggest such an antibody. As described at page 76 of the specification,

> Anti-hPygo2 polyclonal antisera were raised in New Zealand White rabbits as described (...) using an *in vitro* synthesized polypeptide corresponding to amino acid residues 89-328, lacking both NHD and PHD conserved (...) regions of hPygo2,

Page 4 of the specification describes the conserved nature of the NHD and PHD domains. Therefore, antibodies specific to the region defined by amino acids 89-328 are expected to be specific to human pygopus-2. As set out at page 6 of the specification:

> We also described proteins, other than full-length human pygopus, which comprise fragments of human pygopus. These fragments are useful at least as antigens to elicit an immune response and produce antibodies. The fragments include regions that are unique to human pygopus-2. The fragments may be derived from amino acids 1-45, or 74-312 of human pygopus-2. The fragments should be of sufficient size as to form a functional epitope to elicit an antibody response. An epitope may be as short as 8 to 10 amino acids.

The prior art references do not indicate making antibodies to hPygo2-specific regions, let alone antibodies against hPygo2 that lack both the NHD and PHD conserved domains or the region defined by amino acids 89-328 of hPygo2. A skilled person could not expect success in making antibodies specific against hPgygo2 that minimizes cross-reactivity with related proteins, based on the teachings of the prior art.

Applicant submits that the claims comply with 35 USC § 103(a).

RECEIVED
CENTRAL FAX CENTER
MAY 0 8 2008

VI. Final Remarks

Consideration and favourable action on all pending claims are respectfully requested. If any questions or issues remain, the Examiner is invited to contact the undersigned at the telephone number set forth below so that a prompt disposition of this application can be achieved.

If there are any fees due in connection with the filing of this Amendment, please charge the fees to our Deposit Account Number 19-2550.

In view of the foregoing, early favourable consideration of this application is earnestly solicited.

Respectfully submitted,

By _____
(Ms.) Thuy H. Nguyen
Reg. No. 47,336

SMART & BIGGAR
P.O. Box 2999, Station D
900-55 Metcalfe Street
Ottawa, Ontario Canada K1P 5Y6
Tel: (613) 232-2486 x243
Fax: (613) 232-8440

Date: May 8, 2008